

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 03/107432 A1

(51) International Patent Classification⁷: **H01L 29/78**,
29/08, 29/10

(21) International Application Number: PCT/EP03/06117

(22) International Filing Date: 10 June 2003 (10.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02291458.4 12 June 2002 (12.06.2002) EP

(71) Applicant (for all designated States except US): **MOTOROLA INC** [US/US]; 1303 E.Algonquin Road, Schaumburg, IL 60196 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **REYNES, Jean-Michel** [FR/FR]; Motorola Centre De Recherche, Parc Technologique De St Aubin, Route de l'arme Au Merisier, Immeuble Columbia, F-91190 Gif-Sur-Yvette (FR). **DERAM, Ivana** [FR/FR]; Motorola Centre De Recherche, Parc Technologique De St Aubin, Route de l'arme Au Merisier, Immeuble Columbia, F-91190 Gif-Sur-Yvette (FR). **DELOUME, Pascal** [FR/FR]; Motorola Centre De Recherche, Parc Technologique De St

Aubin, Route de l'arme Au Merisier, Immeuble Columbia, F-91190 Gif-Sur-Yvette (FR).

(74) Agent: **MCCORMACK, Derek**; Motorola European Intellectual, Property Operations, Midpoint, Alencon Link, Basingstoke, Hampshire RG21 7PL (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PI, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

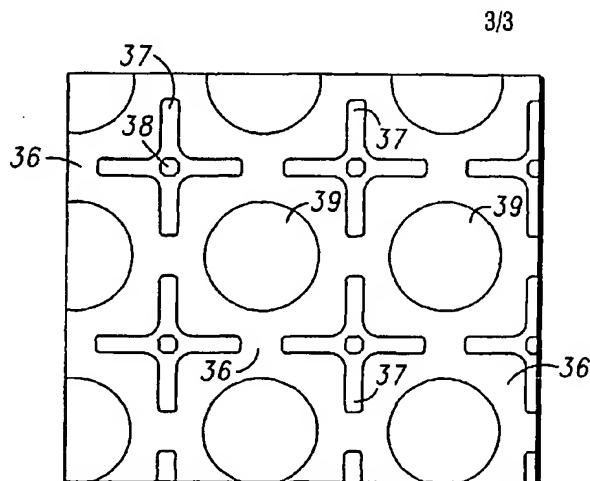
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POWER SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME



(57) Abstract: A low on-state resistance power semiconductor device has a shape and an arrangement that increase the channel density and the breakdown voltage. The power semiconductor device comprises a plurality of individual cells formed on a semiconductor substrate (62). Each individual cell comprises a plurality of radially extending branches (80) having source regions (37) within base regions (36). The plurality of individual cells are arranged such that at least one branch of each cell extends towards at least one branch of an adjacent cell and wherein the base region (36) of the extending branches merge together to form a single and substantially uniformly doped base region (36) surrounding drain islands (39) at the surface of the semiconductor substrate (62).

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